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# System upgrade to Meridian 1

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## Upgrade to option 81C

To upgrade from options 71 or 81 to option 81C, NT8D34 CPU Modules or NT6D60 Core Modules are replaced by NT5D21 Core/Network Modules with their appropriate circuit cards. The arrangements for other modules in the system remain the same as in option 71 or 81.

To upgrade from an option 61 or option 61C with NT9D11 Core/Network Modules, to an option 81C, two NT5D21 Core/Network Modules replace the original system common equipment modules, and an intergroup module and two network modules are added to create the one network group required. Additional modules can be added to expand the number of network groups and the IPE.

When upgrading from 61C that uses NT5D21 Core/Network Modules to option 81C additional CNI cards, an intergroup module and two network modules are added to create the one network group required. Additional modules can be added to expand the number of network groups and the IPE

[Figure 53](#) illustrates the typical upgrade to an option 81C full five-group network from either option 61, 71, or option 81.

**Figure 53**  
**Option 81C upgraded from option 61, 61C (NT9D11), 71, or 81**

|                  |                       |                       |     |     |          |
|------------------|-----------------------|-----------------------|-----|-----|----------|
| NET 4<br>Shelf 1 | IGS                   | IPE                   | MM  | IPE | 553-7555 |
| NET 4<br>Shelf 0 | NET 2<br>Shelf 1      | NET 1<br>Shelf 1      | MM  | IPE |          |
| NET 3<br>Shelf 1 | NET 2<br>Shelf 0      | NET 1<br>Shelf 0      | IPE | IPE |          |
| NET 3<br>Shelf 0 | Core/Net 0<br>Group 0 | Core/Net 1<br>Group 0 | IPE | AEM |          |

To upgrade from a current SL-1 XT system to an option 81C, without full five-group network expansion required, two adjacent Meridian 1 columns are added. These two columns contain two core/network modules and an IPE module. For the current SL-1, which requires network expansion beyond its existing cabinets (QCA55 and QCA108), two Meridian 1 columns are added. These columns contain two core/network modules. All existing network group cards have to be relocated into these two columns, and additional network modules have to be added to reach the required number of network groups. Also, a junctor module and IPE modules are added into these two columns.

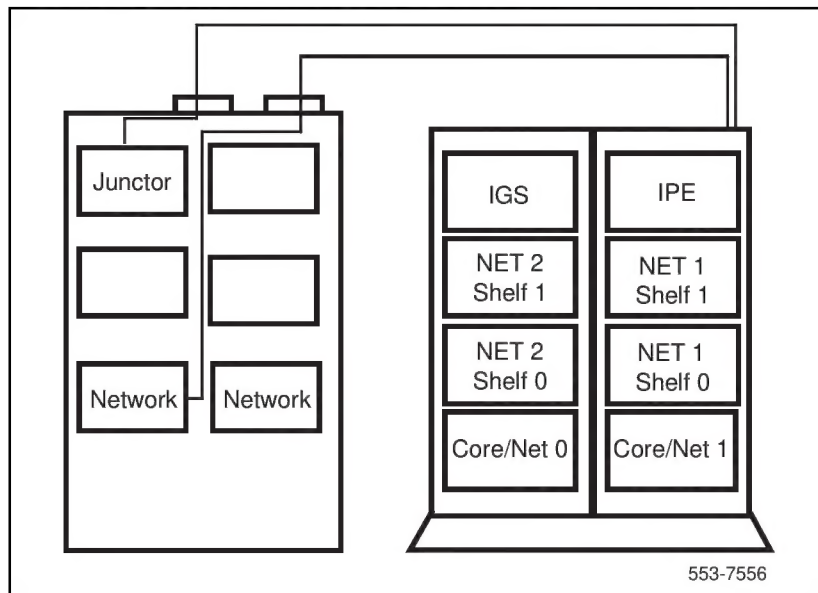
**Table 1** shows the cables required to upgrade to an option 81C.

**Table 1**  
**Cables required to upgrade to option 81C**

| Upgrade        | Cables      | Quantity         | Description                       |
|----------------|-------------|------------------|-----------------------------------|
| Module System  | NTND11AA    | 2 per system     | CMB to CMB cable                  |
|                | NTND13AC    | 1 per system     | SCSI I/O Panel to I/O Panel Cable |
|                | NTND14xx    | 2 per half group | CNI to 3PE cable                  |
|                | NTND89AA    | 2 per system     | RS-232 cable                      |
|                | NT7D90AA    | 2 per system     | Ethernet to I/O Panel cable       |
|                | NT8D80AZ    | 1 per system     | 3PE to 3PE cable                  |
|                | NT8D74AE/AF | 2 per system     | Clock to Junctor cable            |
| Cabinet System | NTND11AA    | 2 per system     | CMB to CMB cable                  |
|                | NTND13AC    | 1 per system     | SCSI I/O Panel to I/O Panel Cable |
|                | NTND89AA    | 2 per system     | RS-232 cable                      |
|                | NT7D90AA    | 2 per system     | Ethernet to I/O Panel cable       |
|                | NT8D80AZ    | 1 per system     | 3PE to 3PE cable                  |
|                | NT8D76AC    | 2 per system     | Clock to I/O Panel cable          |
|                | NTND94AA    | 2 per half group | CNI to I/O Panel cable            |

**Figure 54** shows the interconnection between Meridian 1 columns with core/network modules and the existing SL-1 cabinet.

**Figure 54**  
**Option 81C upgraded from an SL-1 system**



## Upgrade from SL-1 to Meridian 1 system

When a Meridian 1 system option 21, 21A, 21E, 51, 51C, 61, 61C, 71, 81, or 81C is colocated with an SL-1 type, cabling between the systems is the same as described in the previous sections between CPU, network, PE, and IPE modules. However, the system monitor has to interface with the old power monitor circuit cards, such as QPC84, QPC173, QPC704 or QPC813 that require additional cables in the upgrades.

### Upgrade from an SL-1 NT or XT

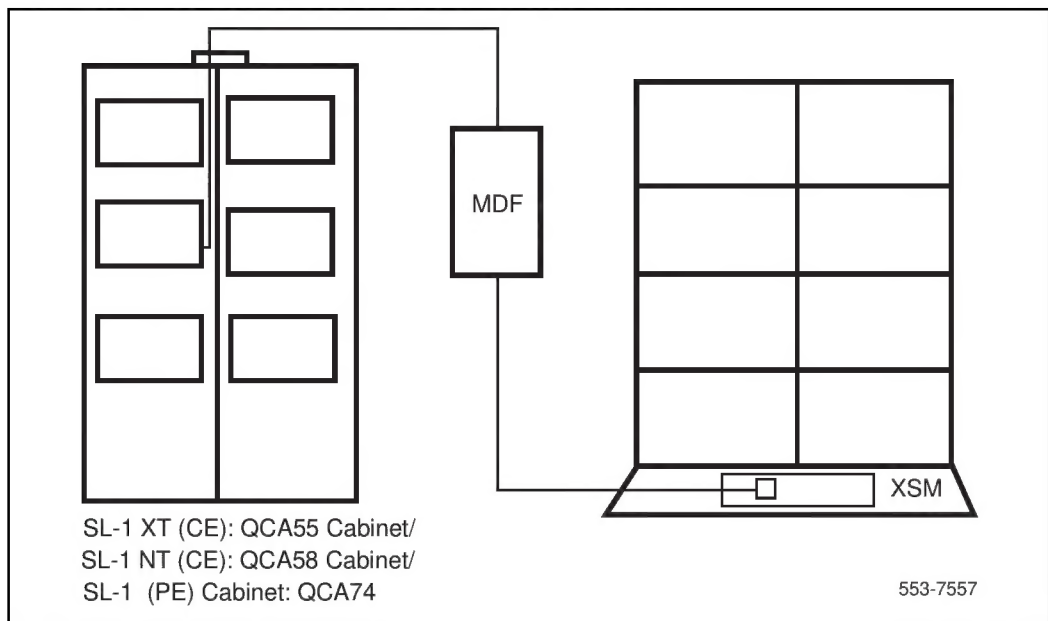
For an upgrade from an SL-1 NT or XT, whether the CPUs are located in the Meridian 1 column to create an option 61C or 81C, or the CPUs remain in the SL-1 cabinet (PE expansion), the system monitor requires the cable NT8D46BH to connect from the J3 connector to the MDF.

At the MDF, the cable P10 is used to connect the SL-1 power monitor card (QPC84 or QPC173) using the NT8D46BH. Depending on the CPU location and the functional configuration between the Meridian 1 and the SL-1 XT or NT system, the installer is required to connect the appropriate leads of the P10 and NT8D46BH cables between two systems in the MDF. Through these connections, the system monitor interfaces with the following power monitor cards:

- SL-1 NT, Cabinet QCA58: QPC84
- SL-1, PE Cabinet QCA74: QPC84
- SL-1 XT, Cabinet QCA55: QCA173

[Figure 55](#) shows the system monitor cabling from the SL-1 NT or XT to the Meridian 1 column via the MDF.

**Figure 55**  
**Option 21E/51C upgraded from an SL-1 NT or RT system**



## Upgrade from an SL-1 ST or RT

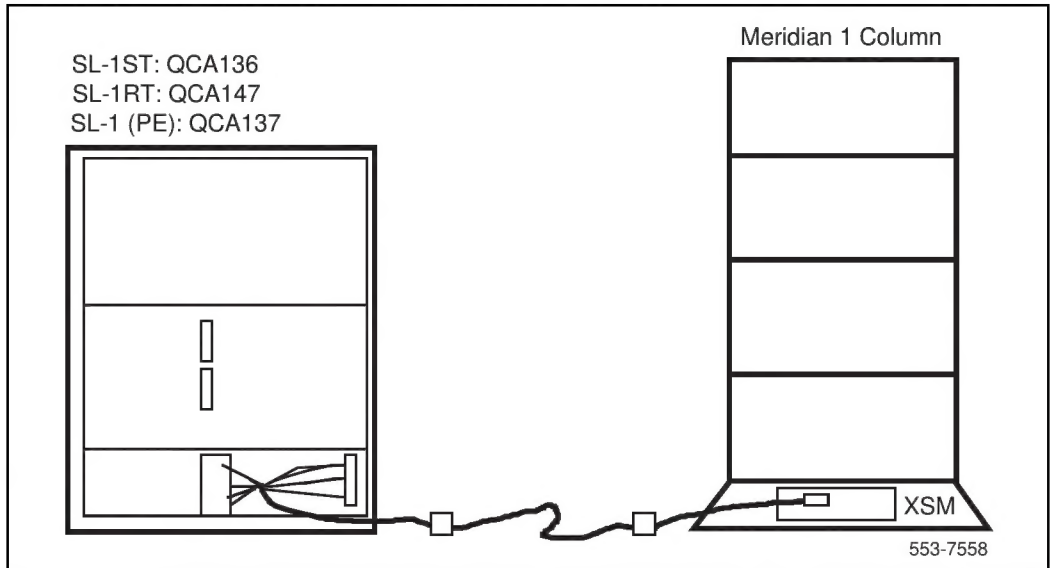
For an upgrade from an SL-1 ST or RT, whether the CPU is located in the Meridian 1 column to create the system option 21E or 51C, or the CPU remains in the SL-1 cabinet (PE expansion), the system monitor requires a variety of cables to connect from the J3 connector to the MDF.

Depending on the CPU location and the functional configuration between the Meridian 1 and the SL-1 ST or RT system, the installer is required to connect the appropriate cables between the systems. In this configuration, the system monitor interfaces with the following power monitor cards:

- SL-1 ST, Cabinet QCA136: QPC704
- SL-1, PE Cabinet QCA137: QPC704
- SL-1 RT, Cabinet QCA147: QPC813

[Figure 56](#) shows the system monitor cabling from the SL-1 ST or RT to the Meridian 1 column.

**Figure 56**  
**Option 21E/51C upgraded from an SL-1 ST or RT system**



**Table 2** shows 12 upgrade configurations and the required cables from current SL-1 ST and RT to the Meridian 1.

**Table 2**  
**Twelve upgrade configurations and required cables (Part 1 of 2)**

| Configuration                                                                                                                | Cabinets                                      | CPU location | Cables                                       |
|------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|--------------|----------------------------------------------|
| SL-1 ST to M-1                                                                                                               | QCA136 (CE) & Meridian 1 (PE)                 | QCA136       | NT8D46AY<br>QCAD309                          |
| SL-1 ST to M-1                                                                                                               | QCA136 (PE) & Meridian 1 (CE)                 | Meridian 1   | NT8D46AX<br>NT8D46BA                         |
| SL-1 (PE) to M-1                                                                                                             | QCA137 (PE) & Meridian 1 (CE)                 | Meridian 1   | NT8D46AX                                     |
| SL-1 ST to M-1                                                                                                               | QCA136 (PE),<br>QCA137 (PE) & Meridian 1 (CE) | QCA136       | NT8D46BC<br>NT8D46BE<br>NT8D46BM             |
| SL-1 ST to M-1                                                                                                               | QCA136 (PE),<br>QCA137 (PE) & Meridian 1 (CE) | Meridian 1   | NT8D46BB<br>NT8D46BC<br>NT8D46BD<br>NT8D46BE |
| SL-1 RT to M-1                                                                                                               | QCA147 (CE) & Meridian 1 (PE)                 | QCA147       | NT8D46AY                                     |
| SL-1 RT to M-1                                                                                                               | QCA147 (PE) & Meridian 1 (CE)                 | Meridian 1   | NT8D46AX<br>NT8D46BG                         |
| SL-1 RT to M-1                                                                                                               | QCA147 (CE),<br>QCA137 (PE) & Meridian 1 (CE) | QCA147       | NT8D46CH                                     |
| SL-1 RT to M-1                                                                                                               | QCA147 (PE),<br>QCA137 (PE) & Meridian 1 (CE) | Meridian 1   | NT8D46BC<br>NT8D46BD<br>NT8D46BE<br>NT8D46BJ |
| <b>Note:</b> In all configurations the cables NT8D46BF and NT8D46BH are used when extending the alarm connection to the MDF. |                                               |              |                                              |



**Table 2**  
**Twelve upgrade configurations and required cables (Part 2 of 2)**

| Configuration                                                                                                                | Cabinets                                                         | CPU location | Cables                                       |
|------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|--------------|----------------------------------------------|
| SL-1 ST to M-1                                                                                                               | QCA137 (PE),<br>QCA137 (PE) &<br>Meridian 1 (CE)                 | Meridian 1   | NT8D46BC<br>NT8D46BE<br>NT8D46BL             |
| SL-1 RT to M-1                                                                                                               | QCA147 (PE),<br>QCA137 (PE),<br>QCA137 (PE) &<br>Meridian 1 (PE) | QCA147       | NT8D46BC<br>NT8D46BE<br>NT8D46BL             |
| SL-1 RT to M-1                                                                                                               | QCA147 (PE),<br>QCA1E7 (PE),<br>QCA137 (PE) &<br>Meridian 1 (CE) | Meridian 1   | NT8D46BC<br>NT8D46BD<br>NT8D46BE<br>NT8D46BJ |
| <b>Note:</b> In all configurations the cables NT8D46BF and NT8D46BH are used when extending the alarm connection to the MDF. |                                                                  |              |                                              |

